

June 30, 2003

Charge Questions for the July 17, 2003 FIFRA SAP

FIFRA SCIENTIFIC ADVISORY PANEL
Charge Questions

SESSION TITLE: Characterization of Epidemiology Data Relating to Prostate Cancer and Exposure to Atrazine

FIFRA SAP MEETING DATE: July 17, 2003, Sheraton Crystal City Hotel, Arlington, Virginia.

DESCRIPTION AND PURPOSE OF SESSION:

Multiple epidemiologic studies have been performed on the herbicide atrazine. These studies have looked at various cancer endpoints, including prostate cancer. The results of a cancer epidemiology study of manufacturing workers found an excess of prostate cancer, but there is strong evidence that some or all of this finding could be an effect of increased screening of workers (MacLennan et al. Mortality among triazine herbicide manufacturing workers. J Toxicol Environ Health A 2003 Mar 28;66(6):501-17).

The National Cancer Institute and EPA are cooperating on a prospective cohort study of about 90,000 pesticide applicators and their spouses in Iowa and North Carolina. Published results from this study did not find an excess of prostate cancer among commercial or private applicators, primarily in agricultural settings (Alavanja et al. Use of agricultural pesticides and prostate cancer risk in the Agricultural Health Study cohort Am. J. Epidemiol 2003;157:800-814). However, these workers would be expected to have lower exposure to atrazine, at least in terms of duration of exposure compared to workers at the manufacturing plant.

SUGGESTED QUESTIONS FOR THE SAP:

1. After reviewing the study of manufacturing workers at the Syngenta St. Gabriel plant; the comments of EPA external peer reviewers; public comments from the Syngenta sponsored peer review and the Natural Resources Defense Council; and the supplemental exposure analysis conducted for the St. Gabriel plant workers, EPA has concluded that the increase in prostate cancer observed in the St. Gabriel manufacturing plant workers could be explained by the increase in PSA screening for these workers. Due to the lack of a detailed exposure analysis based on job history and the limited statistical power due to the small sample size, atrazine could not be ruled out as a potential cause but a role for atrazine seems unlikely. Please comment on EPA's conclusion. Please identify any additional data or analyses of the St. Gabriel cohort that the Agency should consider before reaching a final conclusion.
2. Other available studies may assist the assessment of the potential association between atrazine exposure and prostate cancer. Agricultural workers generally have a much shorter duration of

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exposure compared to workers at a manufacturing plant. In addition, agricultural workers are expected to have a different pattern of exposure compared to manufacturing workers (e.g., intensity, seasonality, routes of exposure). Please comment on comparing the results of the epidemiology study of prostate cancer conducted in the St. Gabriel plant to the results of the Agricultural Health Study, considering that the participants in these two studies were likely to have experienced different exposures. Discuss what such a comparison indicates about the relationship between exposure to atrazine and prostate cancer.